

CLAIMS

WHAT IS CLAIMED IS:

1. A method of making molded components, the method comprising:
supplying a plastic material to a mold to form a molded article;
moving a separating apparatus located in the mold to at least partially
separate the molded article into at least two components.
2. The method of Claim 1 further including the step of opening the mold after
actuating the separating apparatus.
3. The method of Claim 1, further including the step of pulling the at least
partially separated molded article apart into two or more pieces.
4. The method of Claim 1, wherein the separating apparatus is moved by an
actuator.
5. The method of Claim 4 wherein the actuator is one of a mechanical
actuation device, a pneumatic actuation device, a hydraulic actuation device, an
electromechanical actuation device, and a manual actuation device.
6. The method of Claim 4 wherein the actuator is coupled to the separating
device by one or more gears.
7. The method of Claim 6 wherein the actuator is a rack and pinion.
8. The method of Claim 1 wherein the molded article is formed by blow
molding.
9. The method of Claim 1 wherein the separating apparatus includes one or
more cutting members.
10. The method of Claim 9 wherein a cutting member includes a serrated
surface.

11. The method of Claim 9 wherein a cutting member includes a non-serrated surface.
12. The method of Claim 1 wherein the components are non-similar.
13. The method of Claim 12 wherein the components are a container and a lid.
14. The method of Claim 1 wherein the components are similar.
15. The method of claim 1 further including separating the molded article into a first portion, a second portion, and a third portion, wherein the second portion moves with the separating apparatus.
16. The method of Claim 15 further including the step of gripping the second portion so that it moves with the separating apparatus.
17. The method of Claim 16 wherein the separating apparatus includes a plurality of notches configured to grip the second portion.
18. The method of Claim 1 wherein the separating apparatus includes one or more heated cutting elements.
19. The method of Claim 18 further including the moving one or more heated cutting elements through the interior of the mold.
20. The method of Claim 18 further including heating the one or more heated cutting elements by electrical resistance.
21. The method of Claim 18 wherein the one or more heated cutting elements separates the molded article by melting the plastic material.

22. A method of making a molded article having a first portion and a second portion, the method comprising:

forming the molded article in a mold;

at least partially separating the first portion from the second portion; and then

opening the mold.

23. The method of Claim 22 wherein the at least partially separating step includes moving one or more cutting members against the molded article.

24. The method of Claim 22 wherein the at least partially separating step includes directing high velocity air at the plastic material.

25. The method of Claim 22 wherein the at least partially separating step includes perforating the molded article.

26. The method of Claim 22 wherein the at least partially separating step includes cutting the molded article into two or more portions.

27. The method of Claim 22 wherein the at least partially separating step includes scoring the molded article.

28. An apparatus for making molded components, the apparatus comprising:
a cavity configured to provide the desired shape of a molded article; and
a separating apparatus coupled to the cavity and configured to at least partially separate the molded article into at least two pieces.

29. The apparatus of Claim 28 wherein the separating apparatus includes a cutting member.

30. The apparatus of Claim 29 wherein the cutting member includes a serrated cutting surface.

31. The apparatus of Claim 29 wherein the cutting member includes a non-serrated cutting surface.
32. The apparatus of Claim 29 wherein the cutting member includes two or more cutting surfaces.
33. The apparatus of Claim 28 wherein the separating apparatus includes two or more cutting members.
34. The apparatus of Claim 28 wherein the separating apparatus is actuated by an actuator.
35. The apparatus of Claim 34 wherein the actuator is one of a mechanical device, a hydraulic device, a pneumatic device, an electromechanical device, and a manual device.
36. The apparatus of Claim 28 wherein the cavity includes a channel and the separating apparatus includes a base disposed within the channel.
37. The apparatus of Claim 36 wherein the separating apparatus includes an actuator configured to move the base in the channel.
38. The apparatus of Claim 36 wherein the channel is disposed along the perimeter of the cavity.
39. The apparatus of Claim 38 wherein the actuator is coupled to the separating device by one or more gears.
40. The apparatus of Claim 39 wherein the actuator includes a rack and pinion.
41. The apparatus of Claim 28 wherein the separating apparatus includes a plurality of apertures disposed along a perimeter of the cavity and configured to force high velocity air into the cavity.

42. The apparatus of Claim 41 wherein the high velocity air is configured to perforate the molded article.

43. The apparatus of Claim 28 further including one or more notches configured to grip the molded article.

44. The apparatus of Claim 43 wherein the notches are located on the separating apparatus.

45. The apparatus of Claim 28 wherein the separating apparatus at least partially separates the molded article into a first portion, a second portion, and a third portion, the second portion being configured to move with the separating apparatus.

46. The apparatus of Claim 28 wherein the separating apparatus includes one or more heated cutting elements.

47. The apparatus of Claim 46 wherein the one or more heated cutting elements are heated by electrical resistance.

48. The apparatus of Claim 46 wherein the one or more heated cutting elements separates the molded article by melting the plastic material.